



COAXIAL HIGH POWER

# Termination

## TERM-50W-183S+

50Ω 50W DC to 18 GHz SMA Male

### THE BIG DEAL

- Ultra-Wideband Operation, DC to 18 GHz
- Input Power Handling, 50W
- Excellent Return Loss, 26 dB Typ. up to 18 GHz



Generic photo used for illustration purposes only

### APPLICATIONS

- Cellular Communications
- Satellite Communications
- Test set-up
- Defense and Radar

Model No.	TERM-50W-183S+
Case Style	LL2798-3
Connectors	SMA Male

#### +RoHS Compliant

The +Suffix identifies RoHS Compliance.  
See our website for methodologies and qualifications

### PRODUCT OVERVIEW

Mini-Circuits' TERM-50W-183S+ is an ultra-wideband 50Ω high power termination capable of absorbing signals up to 50W from DC to 18 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has SMA male connectors, allowing connections with SMA female connectors. The unit features rugged construction for a long life of use and comes in passivated stainless steel connector with black anodized aluminum housing.

### KEY FEATURES

Features	Advantages
Wideband, DC to 18 GHz	Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Good Return Loss: • 26 dB typ. up to 18 GHz	Good return loss minimizes signal reflections across multiple-decade frequency range
Power Handling up to 50W	Meets a wide range of system power requirements.
Wide operating temperature range, -55 to +100 °C	Withstands tough operating conditions and is suitable for use near high power componentry where heat rise is common.





## ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	DC	-	18	GHz
Return Loss	DC - 6	19.1	35	-	dB
	6 - 12.4	16.5	28	-	
	12.4 - 18	14.7	26	-	
Input Power <sup>1</sup>	DC - 18	-	-	50	W

1. At 25°C, derate linearly to 20W at 100°C.

ABSOLUTE MAXIMUM RATINGS<sup>2</sup>

Parameter	Ratings
Operating Temperature	-55 °C to +100 °C
Storage Temperature	-55 °C to +100 °C

2. Permanent damage may occur if any of these limits are exceeded.



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## TERM-50W-183S+

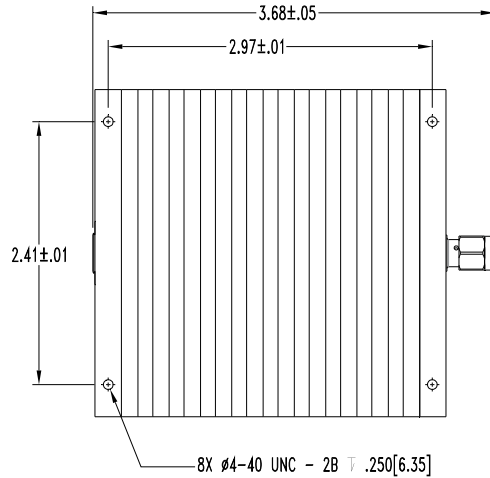
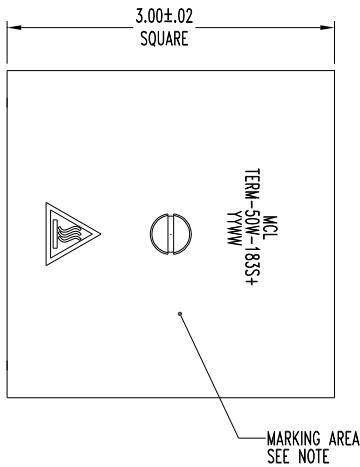
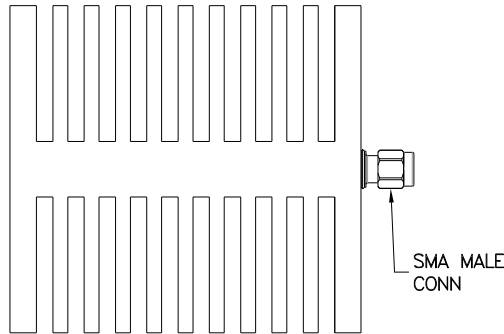
Mini-Circuits

50Ω 50W DC to 18 GHz SMA Male

### COAXIAL CONNECTIONS

Input	SMA Male
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### OUTLINE DRAWING



Weight: 862 grams (max.)



# High Power

## Termination 50Ω, SMA-Male

## TERM-50W-183S+

### Typical Performance Data

FREQUENCY (MHz)	RETURN LOSS (dB)
10	58.83
20	56.84
30	55.11
40	53.63
50	52.07
60	51.49
70	50.63
80	49.84
90	49.12
100	48.53
200	44.08
300	41.44
400	39.57
500	38.12
600	36.92
700	35.89
800	34.99
900	34.20
1000	33.51
1500	31.35
2000	30.85
2500	31.72
3000	33.90
3500	38.17
4000	40.51
4500	34.71
5000	32.70
5500	34.61
6000	32.38
6500	26.64
7000	23.41
7500	21.77
8000	21.31
8500	22.39
9000	25.87
9500	34.04
10000	37.20
10500	28.78
11000	26.06
11500	26.62
12000	29.78
12500	32.33
13000	35.56
13500	49.00
14000	34.56
14500	36.68
15000	36.38
15500	25.09
16000	21.29
16500	20.90
17000	24.23
17500	40.33
18000	26.40

# High Power Termination 50Ω, SMA-Male

# TERM-50W-183S+

## Typical Performance Curves



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site  
The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)



IF/RF MICROWAVE COMPONENTS

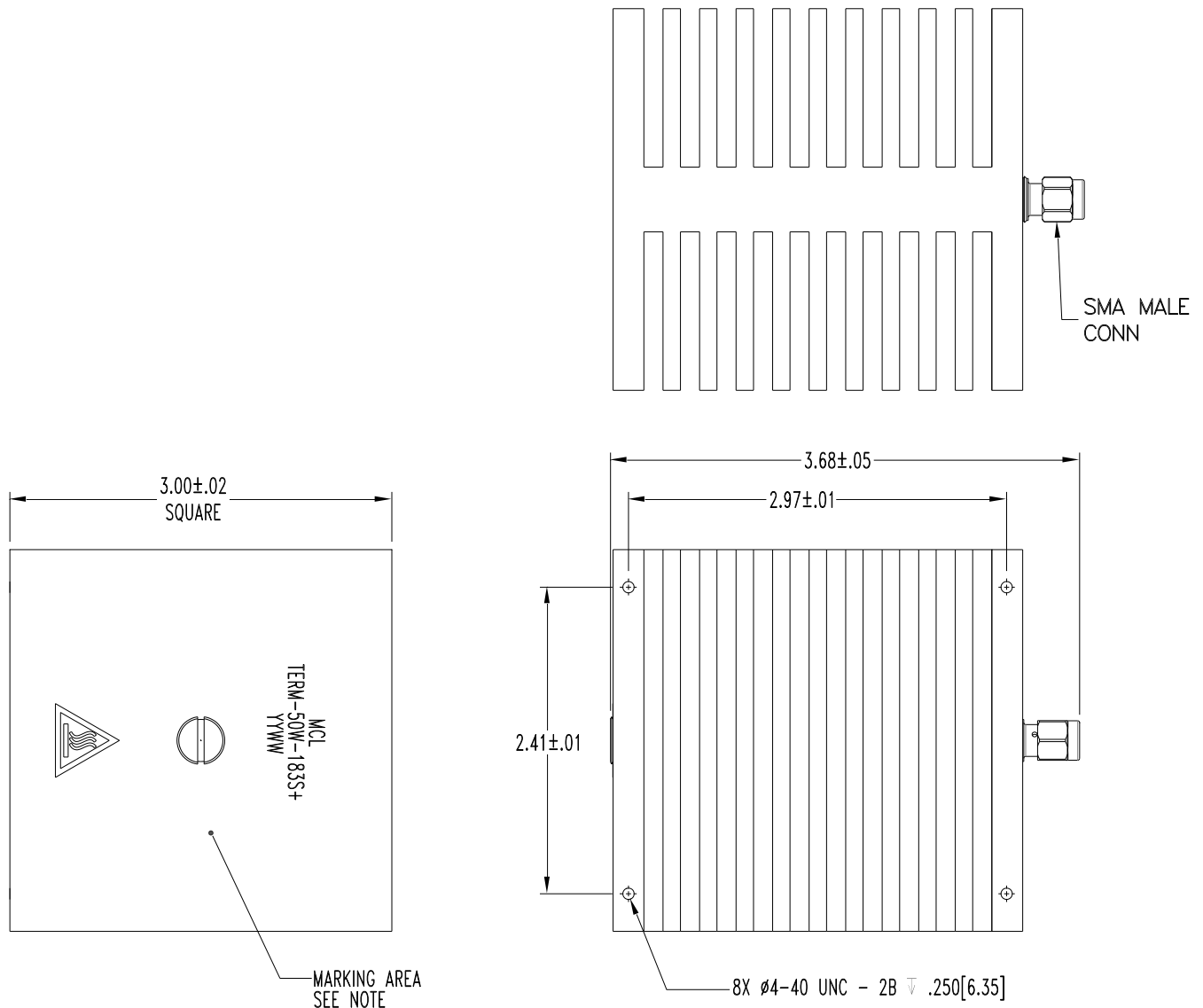
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TERM-50W-183S+  
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# Case Style

# LL

## Outline Dimensions

## LL2798-3



**Weight: 862 grams**

**Dimensions are in inches (mm). Tolerances: 2Pl.  $\pm .03$ ; 3Pl.  $\pm .010$**

### Notes:

1. Case Material: Aluminum alloy.
2. Case Finish: Black anodize.

**Mini-Circuits®**  
ISO 9001 ISO 14001 CERTIFIED

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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100° C or -55° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, conditionB-3,except over -55° to 100°C
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12